

Client Interview Meeting Minutes

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September 14, 2017 3:00pm-4:00pm

Agenda

- * Introductions
- * Schedule/Outline
- * Requirements/General/Technical Questions
- * Milestone discussion
- * Action Items/Misc

Agenda Notes/Status Report

The meeting started out with introductions. Dale Reece is the president of Idaho Scientific and Carrie and Jay are research engineers. We reviewed the schedule and emphasized PDR on 11/17, CDR on 2/10, and completion of project on 5/5. Dale commented on the schedule wanting the work to be more parallel rather than linear so that everyone can work at the same time. We said we would research software and hardware during antenna design and also discuss this more in future meetings.

Then we asked questions. Here are my rough notes on the question answers:

- * Xilinx 2016.4? Boards come with licenses, but we can use whatever license we want.
- * Accuracy of instructions? Research goal, but make it as sensitive as possible.
- * Portability of antenna? Antenna goes with the board

- * Materials with antenna design? Think of use case, must manufacture into embedded system. Peripherals are fair game.

- * Any references/research papers on algorithms that compare and profile signals? Yes. Dale will send us references.

- * Physical hardware changes are secondary goals.

- * When will equipment come? They need to know specs of target device and ADC first. They want Zynq HW, more flexible on target/victim (they will get several because they will break). Once we negotiate parts, it will be 1-2 week turnaround.

- * Metrics? We will need to research the correct metrics. We will need to find good startup code i.e. number of instructions, not one instruction that is the same, false positives.

- * Minimum an attacker needs to do to get what they want? Something has to be altered, and it does not necessarily have to be malicious.

- * How consistent is bootup? End goal - self check of system's health. Thread model - physical access to device.

- * Protect tamper analysis system? Hope - measurement technique is inclusive with system - drive it with crypto key (above and beyond).

- * C code fast? Few seconds for boot, so it needs to be fast (ish).

- * Resource usage limit? Use all of the device.

- * Public wiki page? Don't associate Idaho Scientific with public documentation. Limit to IoT embedded security.

Hard Problems:

- * What sort of boot code? We can pick test vectors. Not too complicated, but sufficiently diverse, i.e. u-boot.

- * What if it doesn't work? This is a research project. If something does not work, that is research itself!

Project Milestones: We need to have representative test code first. We also need to change schedule to make more parallel.

Schedule meetings every two weeks with client. They plan to visit for PDR, CDR, and the project expo. We plan to schedule next meeting on 9/27 at 3:30PM.

Debrief with team after client meeting: We need to add client to github, come up with parts first (start simple, raspberry pi?). We also need more linearity to the schedule which means we need to know more first, do project learning, and research!

Action Items

- * Lydia: Add client to contract, Reprint first page of team contract.
- * Covalt: Obtain dividers for portfolio binder.
- * Everyone: Team picture for front page to portfolio binder
- * Everyone: Choose boards for project design
- * Dale: Send us research/reference articles.